- 3 -

Barvian et al.

AMENDMENT TO THE CLAIMS

The following listing of claim(s) will replace all prior versions, and listings, of claim(s) in the application.

Listing of claim(s):

Claim 1 (amended). A method for inhibiting matrix metalloproteinase enzymes in a mammal comprising administering to the mammal an MMP inhibiting amount of a compound of Formula I

$$\begin{array}{c|c}
R^3 & R^2 \\
R & R^1 \\
R & R^2
\end{array}$$

I

wherein:

R¹, R², and R³ independently are hydrogen, halo, hydroxy, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₂-C₆ alkenyl, C₂-C₆ alkynyl, NO₂, NR⁴R⁵, CN, or CF₃;

E is independently O or S;

A and B independently are OR4 or NR4R5;

each R⁴ and R⁵ independently are H, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkenyl, C₂-C₆-alkyl, (CH₂)_n-aryl, (CH₂)_n-cycloalkyl, (CH₂)_n heterocyclyl, (CH₂)_n heterocyclyl, or R⁴ and R⁵ when taken together with the nitrogen to which they are attached complete a 3- to 8-membered ring, optionally containing a heteroatom selected from O, S, or NH, and optionally substituted or unsubstituted;

-4-

Barvian et al.

n is an integer from 0 to 6; or a pharmaceutically acceptable salt thereof: wherein the compound isophthalic acid bis-(1,3-benzodioxol-5-ylmethyl) ester is excluded.

Claim 2 (amended). A method for inhibiting matrix metalloproteinase enzymes in a mammal comprising administering to the mammal an MMP inhibiting amount of a compound of Formula II

$$\mathbb{R}^3$$
 \mathbb{R}^2
 \mathbb{R}^4
 \mathbb{R}^4
 \mathbb{R}^4
 \mathbb{R}^4
 \mathbb{R}^4
 \mathbb{R}^4

wherein:

R¹, R², and R³ independently are hydrogen, halo, hydroxy, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₂-C₆ alkenyl, C₂-C₆ alkynyl, NO₂, NR⁴R⁵, CN, or CF₃; and

R⁴ and R⁵ is independently H, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆

alkynyl, (CH₂)_n-aryl, (CH₂)_n-cycloalkyl, or (CH₂)_n heterocyclyl,

(CH₂)_n heteroaryl, or R⁴ and R⁵ when taken together with the nitrogen to which they are attached complete a 3- to 8-membered ring, optionally containing a heteroatom selected from O, S, or NH, and optionally substituted or unsubstituted;

n is an integer from 0 to 6;

or a pharmaceutically acceptable salt thereof;

wherein the compound isophthalic acid bis-(1,3-benzodioxol-5-ylmethyl) ester is excluded.

- 5 -

Barvian et al.

Claim 3 (amended). A method for inhibiting matrix metalloproteinase enzymes in a mammal comprising administering to the mammal an MMP inhibiting amount of a compound of Formula III

$$R^3$$
 R^2
 R^1
 R^4
 R^5
 N
 N
 R^4
 R^5

wherein:

R¹, R², and R³ independently are hydrogen, halo, hydroxy, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₂-C₆ alkenyl, C₂-C₆ alkynyl, NO₂, NR⁴R⁵, CN, or CF₃;

R⁴ and R⁵ independently are H, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆

alkynyl, (CH₂)_n aryl, (CH₂)_n eyeloalkyl, (CH₂)_n heterocyclyl,

(CH₂)_n heteroaryl, or R⁴ and R⁵ when taken together with the nitrogen to which they are attached complete a 3- to 8-membered ring, optionally containing a heteroatom selected from O, S, or NH, and optionally substituted or unsubstituted;

n is an integer from 0 to 6; or a pharmaceutically acceptable salt thereof.

Claim 4 (canceled).

Claim 5 (amended). A method for inhibiting matrix metalloproteinase enzymes in a mammal comprising administering to the mammal an MMP inhibiting amount of a compound of Formula V

Barvian et al.

wherein:

R¹, R², and R³ independently are hydrogen, halo, hydroxy, C₁-C₆ alkyl,

C₁-C₆ alkoxy, C₂-C₆ alkenyl, C₂-C₆ alkynyl, NO₂, NR⁴R⁵, CN,

or CF₃ and Het is an unsubstituted or substituted heteroaryl group;

R⁴ and R⁵ independently are H, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆

alkynyl, (CH₂)_n aryl, (CH₂)_n eycloalkyl, (CH₂)_n heterocyclyl,

(CH₂)_n heteroaryl, or R⁴ and R⁵ when taken together with the nitrogen to which they are attached complete a 3- to 8-membered ring, optionally containing a heteroatom selected from O, S, or NH, and optionally substituted or unsubstituted;

n is an integer from 0 to 6; or a pharmaceutically acceptable salt thereof: wherein the compound isophthalic acid bis-(1,3-benzodioxol-5-ylmethyl) ester is excluded.

Claim 6 (amended). A method for inhibiting matrix metalloproteinase enzymes in a mammal comprising administering to the mammal an MMP inhibiting amount of a compound of Formula VI

or a pharmaceutically acceptable salt thereof,

-7-

Barvian et al.

wherein:

R¹, R², and R³ independently are hydrogen, halo, hydroxy, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₂-C₆ alkenyl, C₂-C₆ alkynyl, NO₂, NR⁴R⁵, CN, or CF₃;

R⁴ and R⁵ independently are H, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆

alkynyl, (CH₂)_m-aryl, (CH₂)_n-cycloalkyl, (CH₂)_n heterocyclyl,

(CH₂)_n heteroaryl, or R⁴ and R⁵ when taken together with the nitrogen to which they are attached complete a 3- to 8-membered ring, optionally containing a heteroatom selected from O, S, or NH, and optionally substituted or unsubstituted; and n is an integer from 0 to 6.

Claim 7 (amended). A compound selected from:

4 Methoxy N,N' bis-(4-methoxybenzyl) isophthalamide;

Isophthalic acid di-(2,1,3-benzothiadiazol-5-yl) methyl ester;

4-Methoxy isophthalic acid dibenzyl ester;

4-Methoxy-isophthalic acid dipyridin-4-ylmethyl ester,

Isophthalic acid bis-(4-fluoro-benzyl) ester;

Isophthalic acid bis-(3-fluoro-benzyl) ester;

Isophthalic acid bis (4 methoxy benzyl) ester;

Isophthalic-acid bis (3-methoxy-bonzyl) ester;

Isophthalic acid bis (1,3 benzodioxol 5 ylmethyl) ester;

N,N'-Bis-(3-fluoro-benzyl) isophthalamide;

4-Acetyl isophthalic acid dibenzyl-ester;

4 Methoxycarbonylmethoxy isophthalic acid dibenzyl ester,

N,N'-Bis-1,3-benzodioxol-5-ylmethyl-4-methoxy-isophthalamide;

N-1,3 Benzodioxol 5 ylmethyl 4 methoxy N' (4 methoxy-benzyl) isophthalamide;

4 Methoxy N,N' bis (4 methoxy benzyl) isophthalamide;

Barvian et al.

T-926

- N 1,3 Benzodioxol 5 ylmethyl N' (4 ehloro benzyl) 4 methoxyisophthalamide;
- N-Benzyl-4 methoxy N' (4-methoxy-benzyl) isophthalamide;
- N' Benzyl 4 methoxy N (4 methoxy benzyl) isophthalamide;
- 4-Methoxy N (4-methoxy benzyl) N' pyridin 4-ylmethyl isophthalamide;
- N' 1,3 Benzodioxol 5 ylmethyl 4 methoxy N (2 phonoxy ethyl) isophthalamide;
- N-1,3-Benzodioxol 5-ylmethyl 4-methoxy N' (2-phenoxy-othyl)
 isophthalamide;
- N-1,3-Benzodioxol-5-ylmethyl-N'-furan-2-ylmethyl-isophthalamide;
- N' 1,3 Benzodioxol 5 ylmothyl N (2 othoxy ethyl) 4 methoxyisophthalamide;
- N.N' Bis (3 hydroxymothyl-phonyl) isophthalamide;
- N Benzyl-4 methoxy N' (2 phenoxy ethyl) isophthalamide;
- 4-Methoxy N.N' bis (4-methyl-benzyl) isophthalamide;
- 4-Methoxy N.N' bis-(3-methoxy-benzyl) isophthalamide;
- N-1,3-Benzodioxol 5 ylmethyl 4-methoxy N' (4 methoxy-benzyl)isophthalamide;
- N 1,3 Benzodioxol-5-ylmethyl-isophthalamic acid, (4-carboxyphonyl)methyl-ester;
- 4 [[3 (3 Methoxy benzylearbamoyl) benzoylamine] methyl] benzoic acid;
- 4-Methoxy-isophthalic acid di-2,1,3-benzothiadiazol-5-ylmethyl ester;
- 4 {[3 (3 Methoxy benzylcarbamoyl) benzoylamino] methyl benzoic acid methyl ester;
- N (3-Methoxy-benzyl) N' (4 nitro benzyl) isophthalamide;
- N-(3,4 Dichloro benzyl) N' pyridin 4-ylmethyl isophthalamide;
- NI,N3-Bis-1,3-benzodioxol-5-ylmethyl-4-ethoxy-isophthalamide;
- N (4 Chloro-benzyl) N' (3 methoxy benzyl) isophthalamide;

-9-

10/075,918

Barvian et al.

- N (3,4 Dichloro-benzyl) N' (3 methoxy benzyl) isophthalamide;
- N (4-Methoxy-benzyl) N' (3-methoxy-benzyl) isophthalamide;
- N.N' Bis (4 fluore-3 methoxy benzyl) isophthalamide;
- 4-Ethoxy N1,N3-bis (3-methoxy-benzyl) isophthalamide;
- N1,N3-Bis-1,3-benzodioxol-5-ylmethyl-4-ethoxy-isophthalamide;
- N-(3 Methoxy-benzyl) N'-pyridin 3-ylmethyl isophthalamide;
- N (3 Methoxy benzyl) N' pyridin 4 ylmethyl-isophthalamide;
- N1-1,3-Benzodioxol-5-ylmethyl-N3-pyridin-3-ylmethyl-isophthalamide;
- N (3 Methoxy-benzyl) N' (3 trifluoromethoxy benzyl) isophthalamide;
- N1,N3-Bis-1,3-benzodioxol-5-ylmethyl-4-isopropoxy-isophthalamide;
- 4-Isopropoxy N1,N3-bis (3 methoxy-benzyl) isophthalamide;
- N1-Benzyl 4 methoxy N3 (4-methoxy-benzyl) isophthalamide;
- N1-1,3-Benzodioxel-5-ylmethyl-4 methoxy-N3 (4-methoxy benzyl)isophthalamide;
- N1 1,3 Benzodioxol 5 ylmethyl 4 methoxy N3 (2-phenoxy ethyl)isophthalamide;
- N1 Benzyl-4-methoxy N3 (2-phenoxy ethyl)-isophthalamide;
- N1-1,3 Benzodioxol 5 ylmethyl N3-(4 chlore-benzyl) 4-methoxy isophthalamide;
- N3-1,3 Benzodioxel 5 ylmethyl 4 methoxy-N1 (4 methoxy benzyl)isophthalamide;
- N3 Benzyl-4 methoxy-N1 (4 methoxy-benzyl) isophthalamide;
- N3 1,3 Benzodioxol 5 ylmethyl 4 methoxy N1-(2 phenoxy-ethyl)isophthalamide;
- N3 1,3 Benzodioxel 5-ylmethyl-N1 (2 ethexy-ethyl) 4 methoxy isophthalamide;
- 4 Methoxy-N1 (4 methoxy-benzyl) N3 pyridin-4 ylmethylisophthalamide;
- 4-Amino-N1,N3-bis-1,3-benzodioxol-5-ylmethyl-isophthalamide;
- 4-Acetylamino-N1,N3-bis-1,3-benzodioxol-5-ylmethyl-isophthalamide;

- 10 -

Barvian et al.

- N (3 Methoxy benzyl) N' pyridin 3 ylmethyl isophthalamide;
- N (3 Methoxy benzyl) N' pyridin 4 ylmethyl isophthalamide;
- N1-1,3-Benzodioxol-5-ylmethyl-N3-pyridin-3-ylmethyl-isophthalamide;
- N (4 Chloro-benzyl) N' (3 methoxy-benzyl) isophthalamide;
- N-(3.4 Dichloro benzyl) N'-(3 methoxy benzyl) isophthalamide;
- N (4-Methoxy benzyl) N' (3-methoxy benzyl) isophthalamide;
- N (3 Methoxy-benzyl) N' (4 methyl-benzyl) isophthalamide;
- N.N' Bis (4 fluoro 3 methoxy benzyl) isophthalamide;
- ({3-[(1,3 Benzodioxol 5 ylmethyl) earbamoyl] benzyl amino) acetic acid;
- N Benze[1,3]dioxol 5 ylmethyl isophthalamic(4-hydroxymethyl-benzeic acid) ester:
- N (3,4 Dichloro benzyl) N' pyridin 4 ylmethyl-isophthalamide;
- N-(3 Methoxy-benzyl) N'-(4-nitro benzyl)-isophthalamide;
- 4-{[3 (3-Methoxy-benzylcarbamoyl) benzoylamino] methyl benzoic acid methyl ester:
- N 3 methoxybenzyl-isophthalamic(4 hydroxymethyl benzoic acid) ester;
- 4-{{3-(3-Methoxy-benzylcarbamoyl) benzoylamino}-methyl} benzoic acid;
- N (3 Amino benzyl) N' (3 methoxy benzyl) isophthalamide;
- N (3 Methoxy-benzyl) N' (3 nitro benzyl) isophthalamide;
- 4 Ethoxy N'1.N"3 bis (3 methoxy benzyl) isophthalamide;
- N1,N3-Bis-1,3-benzodioxol-5-ylmethyl-4-ethoxy-isophthalamide;
- N1,N3-Bis-1,3-benzodioxol-5-ylmethyl-4-propoxy-isophthalamide;
- N1.N3-Bis-1,3-benzodioxol-5-ylmethyl-4-isopropoxy-isophthalamide;
- N1,N3-Bis-2,1,3-benzothiadiazol-5-ylmethyl-4-methoxy-isophthalamide; and
- 4-Methoxy-isophthalic acid di-2,1,3-benzothiadiazol-5-ylmethyl ester.

10/075,918 - 11 - Barvian et al.

- Claim 8 (original). A pharmaceutical composition, comprising a compound of Claim 1, or a pharmaceutically acceptable salt thereof, admixed with a pharmaceutically acceptable carrier, diluent, or excipient.
- Claim 9 (original). A pharmaceutical composition for inhibiting MMP13 in a mammal, comprising an MMP-13 inhibiting amount of a
 compound of Claim 1, or a pharmaceutically acceptable salt thereof,
 admixed with a pharmaceutically acceptable carrier, diluent, or excipient.
- Claim 10 (amended). A method for inhibiting MMP-13 in an animal, comprising administering to the animal an MMP-13 inhibiting amount of a compound of Formula I Claim 1, or a pharmaceutically acceptable salt thereof.

Claims 11 and 12 (canceled).

- Claim 13 (amended). A method for treating breast carcinoma, comprising administering to a patient suffering from such a disease an anticancer effective amount of a compound of Formula I Claim 1, or a pharmaceutically acceptable salt thereof.
- Claim 14 (amended). A method for treating a rheumatoid arthritis, comprising administering to a patient suffering from such a disease an effective amount of a compound of Formula I Claim 1, or a pharmaceutically acceptable salt thereof.
- Claim 15 (amended). A method for treating a osteoarthritis, comprising administering to a patient suffering from such a disease an effective amount of a compound of Formula-I Claim 1, or a pharmaceutically acceptable salt thereof.

- 12 -

Barvian et al.

Claim 16 (amended). A method for treating a heart failure, comprising administering to a patient suffering from such a disease an effective amount of a compound of Formula I Claim 1, or a pharmaceutically acceptable salt thereof.

Claim 17 (amended). A method for treating a inflammation, comprising administering to a patient suffering from such a disease an effective amount of a compound of Formula I Claim 1, or a pharmaceutically acceptable salt thereof.